

directions, for example, the movement in the direction of extension of the flange 12c, or the movement in the direction of the depth of the flange storage groove 94c is allowed.

[0110] It is assumed that other holding parts, not shown, also have the flange storage grooves having the flat portions and are adapted to store other syringes so that the indications are visible.

[0111] Subsequently, the operation of the syringe holder 90 will be described.

[0112] The syringe 92 is inserted to the holding part 91 of the syringe holder 90 so that the indication 93 is faced upward. At this time, the orientation of the flange 12c of the syringe 92 is constrained by the flat portion 95 of the flange storage groove 94c, and the flange 12c is kept substantially in the horizontal direction. The indication 93 of the syringe 92 can always be viewed from above.

[0113] When the operator wants to expand the balloon 42 to a size corresponding to 15 mm in diameter, the operator checks the respective indications 93 and selects the syringe 92 with the corresponding indication. After having held the distal portion of the syringe 92 and taken it out from the syringe holder 90, the plunger 7 is pulled back to the proximal portion 26b and connected to the balloon catheter 40. When air is sent to the balloon 42 by the syringe 92, the balloon 42 is expanded to a size corresponding to 15 mm in diameter.

[0114] Although not shown in the drawing, other syringes, for example, when the syringe having the indication 93 showing that the balloon 42 can be expanded to 11.5 mm in diameter is used, the balloon 42 is expanded to a size corresponding to 11.5 mm in diameter. When the holes 14 and 15 are provided on the cylinder 26, a final diameter of the balloon 42 which can be expanded by the capacity from the distal portion 26a of the cylinder 26 to the position where the holes 14 and 15 are formed is shown in the indication 93.

[0115] In this embodiment, since the indication 93 is provided on the syringe 92 so that a rough standard of a size of the balloon 42 which can be expanded by the syringe 92 can be checked visually, selection of the syringe 92 can be performed smoothly, and the time for manipulation can be reduced.

[0116] Furthermore, since the flat portion 95 is provided in the flange storage groove 94c of the holding part 91 so that the rotation of the syringe 92 in the stored state is prevented, the indication 93 can always be placed on the upper surface of the syringe set. Therefore, the contents of the indication 93 can easily be confirmed.

[0117] The effects of facilitating handling, improving reliability of sterilization, and reducing time for manipulation by the structure of storing and holding the plurality of syringes 92 are the same as in the above-described embodiments.

[0118] The invention is not limited to the above-described embodiments, and may be widely applied.

[0119] For example, it is also possible to provide the protrusions 65 (see FIG. 8) in the cylinder storage grooves 71, 72 and 73 shown in FIG. 11 to further reduce the contact areas with respect to the cylinders.

[0120] It is also possible to provide the flat portion 95 (see FIG. 14) in the flange storage grooves 36a, 36b and 36c of the syringe holders 5 and 70 in the first embodiment and the third embodiment.

[0121] While there has been shown and described what is considered to be preferred embodiments of the invention, it will, of course, be understood that various modifications and changes in form or detail could readily be made without

departing from the spirit of the invention. It is therefore intended that the invention be not limited to the exact forms described and illustrated, but should be constructed to cover all modifications that may fall within the scope of the appended claims.

What is claimed is:

1. A syringe set for a balloon catheter at least comprising;
 - a first syringe having a first capacity to expand a balloon catheter to a size corresponding to the first capacity, the first syringe having a side air outlet hole to define the first capacity;
 - a second syringe having a second capacity to expand the balloon catheter to a size corresponding to the second capacity, the second syringe having a side air outlet hole to define the second capacity, the second capacity being larger than the first capacity, the diameter of the outer circumference of the second syringe being larger than that of the first syringe;
 - a syringe holder at least having a first holding part to fit to a part of the outer circumference of the first syringe for holding the first syringe in a removable manner and a second holding part to fit to a part of the outer circumference of the second syringe for holding the second syringe in a removable manner.
2. The syringe set for a balloon catheter according to claim 1,
 - wherein the holding parts are arranged in order of sizes.
3. The syringe set for a balloon catheter according to claim 1,
 - wherein each holding part has a surface that restricts a longitudinal movement of a plunger of the corresponding syringe to prevent the plunger from dropping off.
4. The syringe set for a balloon catheter according to claim 1, wherein the holding parts are formed to provide an allowance with respect to a surface contour of a corresponding syringe, a respectable inner surface of each holding part including at least one protrusion.
5. The syringe set for a balloon catheter according to claim 18, wherein the holding parts have a non-circular cross-section which is substantially orthogonal to the direction of a length thereof.
6. The syringe set for a balloon catheter according to claim 1, wherein the holding parts are formed with a flat portion for constraining rotation of a syringe coming into abutment with a flange of the syringe.
7. The syringe set for a balloon catheter according to claim 1, wherein the holding parts are formed with an opening for allowing a distal portion on a side of a connecting portion for connecting a syringe with the balloon catheter to project therefrom.
8. The syringe set for a balloon catheter according to claim 1, wherein the holding parts include a storage groove, the storage groove including an opening for inserting a syringe.
9. The syringe set for a balloon catheter according to claim 1, wherein the storage groove includes a projection at an upper portion thereof for preventing a stored syringe from dropping off.
10. The syringe set for a balloon catheter according to claim 18, wherein the syringe holder is resilient, so when a syringe is inserted therein, the opening is widened by resilient deformation.